

What is claimed is:

1. A power amplifier comprising:

first and second power transistor stages receiving first and second collector supply voltages, respectively, the first power transistor stage comprising a first RF transistor operating in response to the first collector supply voltage applied to a collector thereof and including a base biased by a first bias voltage, the second power transistor stage comprising a second RF transistor operating in response to the second collector supply voltage applied to a collector thereof and including a base biased by a second bias voltage; and

a first stage bias circuit including first and second bias transistors and a second bias circuit including third and fourth bias transistors for providing the respective first and second bias voltages, collectors of the second and fourth bias transistors being biased by a third supply voltage and collectors of the first and third bias transistors operating in response to a fourth supply voltage.

2. The power amplifier of claim 1 wherein the third supply voltage is independent of the first and second collector supply voltages.

3. The power amplifier of claim 2 further comprising a first housing including first, second, third and fourth terminals, the first terminal being coupled to receive the first collector supply voltage, the second terminal being coupled to receive the second collector supply voltage, the third and fourth terminals being coupled to receive the third and fourth supply voltages, respectively.

4. The power amplifier of claim 3 wherein the first housing has similar physical characteristics to a second housing of a power amplifier that includes fifth, sixth, seventh and eighth terminals disposed on the second housing in a manner similar to the first, second, third and fourth terminals of the first housing, the fifth and sixth terminals coupled to receive fifth and sixth supply voltages, respectively, the seventh terminal coupled to receive an RF signal, the eighth terminal coupled to receive a seventh supply voltage.

5. The power amplifier of claim 1 wherein the third supply voltage is coupled to the fourth supply voltage.

6. A power amplifier comprising:

first, second, third, fourth, fifth and sixth bipolar junction transistors, each transistor including a collector, a base, and an emitter, the emitters of the first, second, third, and fifth transistors being coupled to a ground node, the collector of the fourth and sixth transistors being coupled to a bias voltage node;

a first capacitor including a first terminal coupled to an input node and including a second terminal coupled to the base of the first transistor;

a second capacitor including a first terminal coupled to the collector of the first transistor and including a second terminal coupled to the base of the second transistor;

a first inductor including a first terminal coupled to a first supply voltage node and including a second terminal coupled to the collector of the first transistor;

a third capacitor including a first terminal coupled to the first terminal of the first inductor and a second terminal coupled to the ground node;

a second inductor including a first terminal coupled to a second supply voltage node and a second terminal coupled to the collector of the second transistor;

a fourth capacitor including a first terminal coupled to the first terminal of the second inductor and including a second terminal coupled to the ground node;

a first resistor including a first terminal coupled to a reference voltage node and including a second terminal coupled to the collector of the third transistor and the base of the fourth transistor;

a third inductor including a first terminal coupled to the base of the third transistor and the emitter of the fourth transistor and including a second terminal coupled to the base of the first transistor;

a second resistor including a first terminal coupled to the reference voltage node and including a second terminal coupled to the collector of the fifth transistor and the base of the sixth transistor; and

a fourth inductor including a first terminal coupled to the base of the fifth transistor and the emitter of the sixth transistor and including a second terminal coupled to the base of the second transistor.

7. A power amplifier comprising:

first, second, and third bipolar junction transistors, each transistor including a collector, a base, and an emitter, the emitter of the second transistor being coupled to a ground node, the collector of the third transistor being coupled to a bias voltage node;

a first resistor including a first terminal coupled to the emitter of the first transistor and including a second terminal coupled to the ground node;

a first inductor including a first terminal coupled to a supply voltage node and including a second terminal coupled to the collector of the first transistor;

a first capacitor including a first terminal coupled to the first terminal of the first inductor and including a second terminal coupled to the ground node;

a second resistor including a first terminal coupled to the base of the first transistor and including a second terminal;

a second capacitor including a first terminal coupled to an input node and including a second terminal coupled to the second terminal of the second resistor;

a second inductor including a first terminal coupled to the second terminal of the second resistor and including a second terminal coupled to the base of the second transistor and the emitter of the third transistor; and

a second resistor including a first terminal coupled to a reference voltage node and including a second terminal coupled to the collector of the second transistor and the base of the third transistor.